

Appl. No. 09/289,208
Amdt. Dated: August 27, 2003
Reply to Office Action of July 2, 2003

REMARKS

The Office has objected to claims 1 and 6 for informalities. Applicant cannot confirm the objection with respect to claim 1, as there is no "at" after "is" in the fourth line as the claim was last amended and is presented here (except for the current amendment). Perhaps the prior amendment of 4/15/03 which deleted the phrase "at least equal to" was misinterpreted as not including the word "at". Applicant assumes the claim as here presented to be free of this objection.

A further objection to claims 1 and 6 applied to the phrase "said yarns comprise staple fiber". The present amendments are believed to cure this objection. No new matter is added.

Claim Rejections – 35 USC § 103

The Office has rejected claims 1, 3, 4, 6-8, 10-13, 17-22 under 35USC103(a) as being unpatentable over Sullivan's 5,087,499 in view of Chiou et al's 5,622,771. Applicant has carefully considered the Office rejections and respectfully submits that the amended claims, as supported by the arguments herein, are distinguishable from the cited references.

Sullivan speaks to puncture resistant garments, using mainly high tenacity staple fibers core spun on a polyester core to form a stretch yarn, from which gloves and the like were knitted or weaved, knitting being the construction which is used for illustrative purposes. It is stated that the methods extend to weaved constructions as well. However, at the time the Sullivan application was filed, May, 1990, the state of the art in weaving of such materials was at densities of less than 70 ends per inch in warp and fill, for which the Sullivan methods would arguably work in either knit or weave constructions. 70 ends per inch weaving densities as are discussed in this Applicant's case were only later introduced and commercialized by this applicant and others (reference priority document, issued patent no. 5,565,264, filed Aug. 29, 1994).

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In light of the open knit style construction illustrated and discussed in Sullivan, and the degrading in strength and integrity that are necessarily inflicted on the yarn by his method, any one skilled in the art would recognize the folly of attempting to achieve the goals of this invention at its significantly higher performance requirements, at the weave densities utilized in this invention, by using Sullivan's methods in any combination. The Sullivan col. 5, line 15 reference as to the invention being applicable to "any knit or woven pattern having a plurality of openings similar to that as shown in Fig. 2," clearly maps out the scope of Sullivan disclosure, such openings being eliminated in the contemporary weave densities to which the instant application applies. Corroborating this fact, skilled practitioners at the time of this invention would recognize that core spun stretch yarns of that period, as are called out at col 4, line 11, for example, could be expected to be in the range of 1000 denier, too large for the weave densities to which this Applicant's claims are expressly or inherently limited. The Sullivan methodology is simply incompatible in any manner with the constructions claimed. For at least this reason, Applicant requests Sullivan be withdrawn and the claims reconsidered.

The Office also cites Chiou's 5,622,771, filed June 24, 1996, for its contribution of cover factors and high density weave, specifically the 70 x 70. Applicant calls the Office's attention to this Applicant's chain of priority documents; this application being a divisional of U.S. 5,976,996, which is a continuation in part of U.S. 5,837,623, which is a continuation in part of 5,565,264, filed Aug. 29, 1994 and thus predates the Chiou patent filing date by more than one year. The high density weave construction claimed here is a principle element of the subject matter of the '264 patent, and remained a principle element through the chain of priority documents to this application. So the very element of Chiou's patent cited here for the combination was clearly predated by this Applicant's prior application to which this application claims priority. Chiou is disqualified both on the technicality of its later priority date and on the basis of the specific subject matter, the high density weave which was first invented and claimed by this Applicant in this line of applications. For at least these reasons, Applicant requests Chiou be withdrawn and the claims reconsidered.

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Regarding the combination of Sullivan and Chiou, according to the MPEP §2143.01, "[o]bviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found in either the references themselves or in the knowledge generally available to one of ordinary skill in the art."

Applicant respectfully submits that this is an improper combination of references, in that, when taken as a whole, there is no motivation or suggestion to combine the references to achieve the Applicant's claimed invention. Section 2143.01 of the MPEP states: "The mere fact that references can be combined or modified is not sufficient to establish prima facie obviousness." In addition, the "level of skill in the art cannot be relied upon to provide the suggestion to combine references." Thus, it is inappropriate to use the Applicant's claims as a road map in selecting a combination of references to form a 103 rejection. Rather, there must be some objective reason to combine the teachings of the references to make the claimed invention. Applicant cannot find such an objective reason.

As was described above, there is nothing in Sullivan that is applicable at the high cover factor and weave densities described in either this application or in Chiou. The core spun yarns, the brushing step, and the ragged result of the Sullivan technique are all incompatible with high density construction in the range of either Chiou or this application. There is no rational basis to assert a teaching, suggestion or motivation for the combination. Applicant requests the combination be withdrawn for at least this reason, and the claims reconsidered.

The Office rejected claims 14 and 15 under 35USC103(a) as being unpatentable over Sullivan in view of Harpell's 4,403,012. Applicant invokes its prior comments about Sullivan and 103(a) rejections and combinations and states further as follows.

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Claims 14 and 15 provide expressly for a "repeatedly interrupted coating ... providing flexure points to the fabric substrate at the areas of interruption." A review of the specification at page 8, line 20, in conjunction with Fig. 8 to which it refers, clearly describes this method and resulting structural aspect of the invention as much more than mere "coated fibers" as was characterized by the Office in its correspondence. It is a method employing any suitable masking technique for defining a repeating series of intersecting "streets" on the fabric so that the application of a coating of epoxy resin will be excluded from contacting the fabric on the street lines and limited to forming "islands" of epoxy that will harden into small platelets adhered to the fabric, with precise lines of separation between them. It will be clear to even a casual reader that the end result is a structural mosaic of armor tiles between which run intersecting folding lines in the fabric that assure that a degree of drapeability is retained in the coated substrate. This structural element of the invention and its benefits are further described at page 11, lines 18+.

Nothing in Harpell suggests the structural limitation of claims 14 and 15. The Office having mischaracterized Harpell, and Harpell having no suggestion or teaching relating the rejected claims, Applicant requests Harpell be withdrawn and the claims reconsidered.

Furthermore, there is no rational basis for asserting a suggestion, teaching or motivation for combining Harpell with Sullivan to obtain the subject matter of claims 14 and 15. For this reason, Applicant requests the combination and the rejection be withdrawn and the claims reconsidered.

Restriction:

Regarding the restriction requirement previously applied to claim 16: withdrawn claim 16 is herein amended to conform the first element of the claim to the substance of amended claim 1, thereby making claim 1 generic. The further elements of claim 16 are in substance related to

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claims 15 and 16 and therefore do not raise any new matters for consideration. Applicant therefore asserts claim 16 to be allowable and respectfully requests it be reinstated.

Restriction is proper if two or more "independent and distinct" inventions are claimed in one application. This relates both to the burden of searching as well as double patenting issues. The terms are defined in the MPEP as follows:

INDEPENDENT

The term "independent" (i.e., not dependent) means that there is no disclosed relationship between the two or more subjects disclosed, that is, they are unconnected in design, operation, or effect, for example: (1) species under a genus which species are not usable together as disclosed; or (2) process and apparatus incapable of being used in practicing the process.

DISTINCT

The term "distinct" means that two or more subjects as disclosed are related, for example, as combination and part (subcombination) thereof, process and apparatus for its practice, process and product made, etc., but are capable of separate manufacture, use, or sale as claimed, AND ARE PATENTABLE (novel and unobvious) OVER EACH OTHER (though they may each be unpatentable because of the prior art). It will be noted that in this definition the term related is used as an alternative for dependent in referring to subjects other than independent subjects.

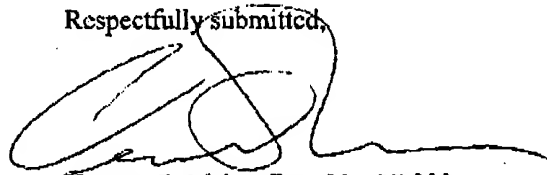
Accordingly, restriction is proper when there are there are two or more claimed inventions only if they are able to support separate patents and they are either independent or distinct (MPEP Section 806). According to MPEP Section 806.03, "where the claims of an application define the same essential characteristics of a single disclosed embodiment of an invention, restriction therebetween should never be required. This is because the claims are but different definitions of the same disclosed subject matter, varying in breadth or scope of definition." Here there is no search burden and no double patenting issue. Applicant asserts the restriction to be improper under these standards, and respectfully requests claim 16 be restored.

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SUMMARY

The objections to claims 1 and 6 having been cured, the rejections not maintained having been withdrawn, the present rejections and the restriction having been traversed, Applicant believes the amendments and remarks to be fully responsive to the Office correspondence and the application to be in condition for allowance, and respectfully requests speedy consideration thereof.

Respectfully submitted,



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